

Title (en)
CONTROLLED COMMINATION OF MATERIALS IN A WHIRL CHAMBER

Title (de)
KONTROLLIERTE ZERKLEINERUNG VON STOFFEN IN EINER WIRBELKAMMER

Title (fr)
PROCEDE DE BROYAGE CONTROLE DE MATERIAUX DANS UNE CHAMBRE A TURBULENCE

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Abstract (en)
[origin: WO9852694A1] The invention describes a process of controlled comminution of a particulate solid material into a milling having particles of predetermined dimensions, and also a milling whirl chamber (B, C, D, E, F, H, G, I) having two end faces (3 and 4) and a cylindrical side wall (5) with at least one nozzle (7) for injection of a working fluid into the chamber, means for introducing the particulate solid material into the chamber (8), a central axial passage (9) for discharge of the comminuted material in a flow of the working fluid from the chamber, and one or more mechanical elements (13, 15, 17, 19, 24, 28, 29) for control of the comminution process in the chamber. The process includes tangentially injecting the working fluid into the chamber, introducing the particulate solid material for creating in the chamber a vortex where the particulate material undergoes comminution in the flow of the working fluid, and controlling uniformity of the milling and dimensions of the particles therein by deliberately accelerating or retarding discharge from the chamber of the particles moving in the vortex close to the inner walls of the chamber by the mechanical elements provided in the chamber and adapted to interact with such particles.

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